

ABSTRACT

A method of introducing an impurity and an apparatus for introducing the impurity forms an impurity layer easily in a shallower profile. Component devices manufactured taking advantage of these method or apparatus are also disclosed. When introducing a material to a solid substance which has an oxidized film or other film sticking at the surface, the present method and apparatus first removes the oxidized film and other film using at least one means selected from among the group consisting of a means for irradiating the surface of solid substance with plasma, a means for irradiating the surface of solid substance with gas and a means for dipping the surface of solid substance in a reductive liquid; and then, attaches or introduces a certain desired particle. The way of attaching, or introducing, a particle is bringing a particle-containing gas to make contact to the surface, which surface has been made to be free of the oxidized film and other film. Thus, the particle is attached or introduced to the surface, or the vicinity, of solid substance. The component devices are those manufactured taking advantage of the above method or apparatus.